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APPROVAL OF UNDP ASSISTANCE TO A PROJECT OF
CHINA

IPF: (1992-96) $176 600 000
(CPR/91/G42) - Gas Transmission/Distribution Rehabilitation

Date of approval by the AC: 1/	15 April 1992
Expected duration:	Nine months
Proposed executing agency:	World Bank
Government implementing agency:	Sichuan Petroleum Administration (SPA)
Proposed UNDP contribution:	$1 400 000 Source of funds: GEF
Total UNDP budget:	$1 400 000

Project background

Gas, an environmentally clean fuel, occupies a very small proportion of China's total primary energy production, despite potentially large reserves. In 1990 it accounted for merely two percent, with coal the dominant source at around 75 percent. The Government of China, recognizing the significant adverse pollution and environmental impact of such heavy reliance on coal, is committed to a comprehensive programme to lay equal emphasis on energy development and conservation, improve the energy structure and distribution, strengthen energy management and speed up the sector's technical transformation, rationalize energy prices and mitigate the environmental impact of energy production and use.

To this end, it has requested UNDP assistance to explore and develop new gas fields, recover and utilize more effectively the gas associated with oil production, and develop other gas resources such as biogas and coalbed methane in order to accelerate fuel substitution and reduce China's contribution of greenhouse gases. Gas production is expected to rise from 15 billion cubic metres in 1990 to over 20 billion in 1995, through a combination of developing both oil-associated and non-associated gas fields. Gas exploration activities have expanded markedly in recent years with the discovery of large natural gas fields in Sichuan, China's major gas producing province, as well as in neighbouring Shaanxi and Qinghai. In addition, significant amounts of gas from the newly discovered major fields in the Tarim basin in Xinjiang will be produced in the near future.

The efficient recovery and utilization of gas is particularly important from an environmental viewpoint, apart from the fact that it is a much cleaner fuel/feedstock than coal. Natural gas is largely composed of methane which is a much more potent greenhouse gas than carbon dioxide. When burnt efficiently it results in less carbon dioxide per unit of energy produced. However, inefficient recovery distribution and combustion results in escape of methane, contributing to speeding up global warming.

1/ This Fact Sheet reflects the status of the project/revision at the time it was approved by the Action Committee; modifications to the project/revision may have occurred subsequently.

The Government of China has also requested World Bank assistance in the development of key aspects of the gas sector through improvements in gas production, transmission and distribution and selected utilization through a proposed Sichuan Gas Development and Conservation Project, which is part of the World Bank's lending programme for the 1993 financial year. Financing from the GEF ($10 million GEF, $10 million from other sources) is being sought for the transmission and distribution component of the project. Sichuan accounts for 90 per cent of non-associated natural gas and 50 per cent of all natural gas (discrete gas fields and that produced in association with oil production) in China. As such it has by far the largest gas transmission and distribution system, totalling over 2,500 km. Most of this system is old, and in urgent need of rehabilitation, especially as it is planned to increase gas production substantially in the future. The current network is operating under precarious safety conditions, and is prone to breakdowns and accidents.

Description of project

The immediate objectives of the project are to: (a) carry out a diagnostic study to assess the current problems of the system and recommend the optimal plan for rehabilitation, including corrosion and gas leakage monitoring and control; and (b) develop a framework for optimally allocating the proposed $20 million to be used for capital and institutional investment. Project activities will include: (a) providing a list of priority investments in the sector which can be funded by a variety of source either from the multilateral development agencies or from the Government itself, (b) maximization of gas leakage reduction and improved safety per unit of investment; (c) striving towards effective investment in rehabilitating the Sichuan transmission and distribution network resulting in a significant reduction in methane emissions to standard world levels of around 0.1 percent, and thus directly addressing global warming concerns; (d) improving safety and availability of the gas saved through reduced emissions; (e) addressing the pricing issue; and (f) assessing the various options for gas pricing reform.

Inputs

UNDP will provide a subcontract for 94 work-months of international consultants and on-the-job training; 36 work-months of national consultants; group training and travel costs for a review meeting; and a supply of essential meters and computers.

Financial data

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Personnel	36 000
Subcontract	1 255 000
Training	37 000
Equipment	71 500
Total	1 400 000

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